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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE BOARD OF PATENT APPEALS MAR 21 2003
AND INTERFERENCES

DIRECTOR OFFICE
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Ex parte SCOTT A. ROSENBERG, EDMUND SANDBERG,
and SAMSON HUANG

MAILED

Appeal No. 2001-1860
Application No. 08/993,104

JAN 15 2003

ON BRIEF

PAT. & T.M. OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

Before THOMAS, HAIRSTON, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-14 and 16-25, which are all the claims remaining in the application.

We affirm.

BACKGROUND

The invention is directed to a voltage signal modulation scheme which may be used in a liquid crystal display (LCD) device. Representative claim 1 is reproduced below.

1. A circuit for modulating voltage signals comprising:

a first circuit configuration to substantially simultaneously and asynchronously drive respective positive and negative voltage signals onto respective voltage signal storage elements;

and a second circuit configuration to alternatively sample the respective voltage signals of the respective voltage signal storage elements at a substantially predetermined rate.

The examiner relies on the following references:

Shields	4,870,396	Sep. 26, 1989
Takahara et al. (Takahara)	5,436,635	Jul. 25, 1995

Claims 1-14 and 16-25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.¹

Claims 1-14 and 16-25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Takahara and Shields.

¹ The examiner's failure to list claims 21 and 23 in the statement of the rejection under 35 U.S.C. § 112, second paragraph is an apparent oversight, since each claim incorporates the limitations of a rejected base claim.

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We refer to the Final Rejection (Paper No. 9) and the Examiner's Answer (Paper No. 15) for a statement of the examiner's position and to the Brief (Paper No. 14) for appellants' position with respect to the claims which stand rejected.

OPINION

Section 112

The function of claims is (1) to point out what the invention is in such a way as to distinguish it from the prior art; and (2) to define the scope of protection afforded by the patent. In re Vamco Mach., Inc., 752 F.2d 1564, 1577 n.5, 224 USPQ 617, 635 n.5 (Fed. Cir. 1985). The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. In re Warmerdam, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). The inquiry is merely to determine whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). The definiteness of the language employed must be analyzed -- not in a vacuum, but in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

In the statement of the rejection under 35 U.S.C. § 112, second paragraph (Answer at 3-5), the examiner sets forth several concerns arising from the language of the instant claims. The examiner considers the words "simultaneously" and

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“asynchronously” as being, in essence, contradictory. The examiner concludes that the language of the claims renders the subject matter vague and indefinite.

Appellants’ position (Brief at 8-10) is that the examiner has improperly relied on “extrinsic evidence” by referring to dictionary definitions of the relevant terms. However, appellants do not point to any portion of the instant specification that sets out any definitions for the words to inform the reader that they are to be considered of scope different from the ordinary, customary meanings of the words. Appellants argue instead that, as used in the specification, “asynchronously” refers “to when other cells within an LCD system are updated or accessed.” (Id. at 6.) According to appellants, “asynchronously” may also refer to “how a voltage potential may be driven to some storage elements of an LCD display independently of activity occurring with other storage elements.” (Id. at 13.)

We agree with the examiner that the plain language of the claims sets forth apparent contradictory limitations with respect to recited elements. Claim 1, for example, recites that the “first circuit configuration” is to “simultaneously and asynchronously drive respective positive and negative voltage signals onto respective voltage signal storage elements.” In our reading of the claim, the first circuit configuration drives voltage signals onto signal storage elements in both a “simultaneous” and “asynchronous” manner. However, in our view, the recited action cannot be both “simultaneous” and “asynchronous.” We thus agree with the examiner

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that the language renders the claims indefinite under 35 U.S.C. § 112, second paragraph.

Even if we were to ignore the claim syntax and read the term “asynchronously” as referring to “other cells” within an LCD system, such an interpretation would also render the subject matter indefinite. The term “asynchronously” would be measured with respect to elements not set forth by the claims, and thus arbitrarily determined.

Another of the examiner’s concerns centers on the use of “substantially” before “simultaneously and asynchronously.” Further, the use of “substantially” before “predetermined rate” (in each of the independent claims other than 18) is also considered by the examiner as rendering the subject matter indefinite.

We agree with appellants in general, as argued in the Brief, that the term “substantially” may represent accepted practice in claim drafting, and such use fails to per se make a claim indefinite. However, there must also be, to a reasonable degree, some indication as to the bounds of the scope of protection afforded by the broadening term “substantially.” Appellants point to nothing in the specification that would apprise the artisan with respect to how distant from “simultaneous,” “asynchronous,” or “predetermined” might be considered “substantially” simultaneous, asynchronous, or predetermined.

With respect to “substantially simultaneously,” appellants argue that “one skilled in the art would understand that the voltage potentials may not be stored at exactly the same time due to a variety of reasons.” (Brief at 6.) Even if true, however, the

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allegation does not speak to how far from "exactly" the recitation "substantially simultaneously" may reach.

We thus agree with the examiner that the claims fail to pass muster under 35 U.S.C. § 112, second paragraph because of the undetermined scope of the term "substantially," as modifying the words "asynchronously," "simultaneously," and "predetermined." Our determination is not based on the view that it cannot be shown that the artisan would understand the bounds of protection corresponding to the use of the term "substantially" in the claims. Our conclusion that the present use of "substantially" in the claims renders the subject matter indefinite is based on the lack of guidance provided by the instant specification and the lack of evidence provided by appellants that specific ranges, specific examples, or other guidance that might be provided by a disclosure is not essential for the artisan's understanding of the present claim scope. Understanding of the scope of "substantially" may be derived from extrinsic evidence. Verve, LLC v. Crane Cams, Inc., No. 01-1417, 2002 U.S. App. LEXIS 23565, at *7-8 (Fed. Cir. Nov. 14, 2002) (remanding case for recourse to extrinsic evidence concerning the usage and understanding of the term "substantially" in relevant context).

We also note that the Brief's Summary of the Invention (at 4-5) does not explain how the scope of the claimed subject matter may be affected by occurrence of the term "substantially." Moreover, appellants refer to a "substantially predetermined rate" as

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"e.g., a square wave signal." However, a "square wave signal" is a signal waveform -- not a "rate."

Finally, the examiner points out that claim 16 is indefinite because it purports to depend from a claim (15) that has been canceled. We find no response in appellants' Brief on the point.

For the foregoing reasons, we sustain the rejection of claims 1-14 and 16-25 under 35 U.S.C. § 112, second paragraph.

Section 103

We select instant claim 1 as representative of the subject matter, as appellants concede that, for purposes of appeal, the claims stand or fall together. (Brief at 7.) See 37 CFR § 1.192(c)(7).

The examiner contends (Answer at 6-7) that the subject matter of instant claim 1 would have been obvious because the circuit of Takahara, when modified in accordance with the teaching of a sample and hold circuit as described by Shield, would meet the requirements of the claim.

Appellants' sole argument in response is that the examiner has not given effect to the "asynchronous" feature of the claims. "[T]he Examiner did not provide any explanation as to how either Takahara et al or Shields asynchronously drives voltage potentials onto storage elements." (Brief at 17.) The examiner responds in turn that the "concept of asynchronously driving" is taught by the suggested combination

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because in Takahara's Figure 1 "driving from one scan line Gp1 to another scan line Gp2 is performed asynchronously." (Answer at 10.)

Takahara describes (col. 14, l. 40 - col. 15, l. 2) operation whereby a voltage of positive polarity is selectively applied to a single gate signal line (e.g., Gp1). Each selection is asynchronous with respect to the selection of transistor cells in other lines.

Takahara's operation is thus "asynchronous" in the same sense that operation in appellants' claim 1 is "asynchronous," as appellants would have us interpret the claim -- i.e., asynchronous with respect to "other cells" within the system. We thus adopt appellants' claim interpretation for the purpose of comparing the applied prior art with the requirements of instant claim 1. We consider the examiner's finding that the combination of Takahara and Shields teaches the allegedly lacking feature of "asynchronously" to be supported by the record.

We sustain the rejection of claims 1-14 and 17-25 under 35 U.S.C. § 103, as appellants have not shown error in the rejection. However, we reverse, pro forma, the rejection of claim 16 under section 103 because the claim purports to depend from canceled claim 15. We are unable to ascertain the metes and bounds of claim 16 to any extent.

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CONCLUSION

We have sustained the rejection of claims 1-14 and 16-25 under 35 U.S.C. § 112, second paragraph, and the rejection of claims 1-14 and 17-25 under 35 U.S.C. § 103. The examiner's rejection of claims 1-14 and 16-25 is thus affirmed.

We have considered all of appellants' arguments in making our determinations. Arguments not relied upon are deemed waived. See 37 CFR § 1.192(a) ("Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown.") and §§ 1.192(c)(8)(ii),(iv) (the brief must point out the errors in the rejection).

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

JAMES D. THOMAS
Administrative Patent Judge

KENNETH W. HAIRSTON
Administrative Patent Judge

HOWARD B. BLANKENSHIP
Administrative Patent Judge

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